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## ABSTRACT

This module for a 1-semester Total Quality Management (TQM) course for high school or community college students discusses the concepts of customer satisfaction, customer surveys, and quality functional deployment. The concept of customer satisfaction begins with identifying the customer. Surveys are suggested as one way that students can learn about their customers or provide information regarding customer satisfaction. Sample surveys are provided. The process of interviewing customers, evaluating their desires, and determining the cost of those desires, known as Quality Functional Development (QFD), is described. A bibliography lists seven references. Handouts and transparency masters are included. (KC)

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# TOTAL QUALITY MANAGEMENT (TQM):

## TRAINING MODULE

ON

## " FOCUS ON THE CUSTOMER "

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# FOCUS ON THE CUSTOMER

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# FOCUS ON THE CUSTOMER

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# FOCUS ON THE CUSTOMER

## INTRODUCTION:

The topics in this module are on Customer Satisfaction, Customer Surveys, and Quality Functional Deployment. These concepts should be introduced as early as possible and can be used as a stand alone presentation. However, they will be more effective when they interface with the other TQM concepts: continuous improvement, teamwork, and empowerment.

The concept, customer satisfaction, begins with identifying the customer. A survey is one way the student can learn about his/her customer or provide information regarding customer satisfaction. The survey should be tailored according to the information desired, kept simple, preferably to one page. Some sample surveys are provided.

Quality Functional Deployment is another way of approaching and interviewing specific customers when an organization is going to develop a new product or service. The customer defines the characteristics and together with the cost of implementation, enables the organization to design a new product or service. The process of interviewing the customer, evaluating their desires, and determining the cost of those desires is known as Quality Functional Development (QFD).

In summary, the area of customer satisfaction or focus on the customer is the most important cornerstone within Total Quality Management. The concept is to put the customer first at all times. The goal is to delight the customer. As these concepts continuously evolve there will be an improving organization.

In teaching this module, you may want to empower the students so they can decide the way the class operates. This will give them a chance to work as members of a team and learn how to be customer driven. Once the students are empowered, let them select their exercises or projects. Hopefully this experience will give them a better appreciation for the consumer.

# FOCUS ON THE CUSTOMER

## NARRATIVE:

Customer Satisfaction is the first and most important of the four cornerstones of Total Quality Management. It is more than customer satisfaction, it is a commitment to customer satisfaction. Arthur Tenner and Irving DeToro in their book titled "Total Quality Management" have stated that, "Having identified the customer's requirements and meeting those requirements every time, 100% of the time, is the essence of achieving quality."

It will be hard for many to understand the concept of customer satisfaction. They are accustomed to working in organizations or being in organizations where they don't see the ultimate customer who purchases their product. These people spend most of their time working with those people who are internal to their organization, therefore the concept of the customer is unique to them.

One of the most important concepts to learn about customer satisfaction is in the definition of "Who is the customer?" In the field of Total Quality Management there are two types of customers. One is called the Big "C" customer. This is the Customer who actually pays for the product. They are the ones who make the organization possible because if they did not pay for the product or service the organization would not be in business. It's fairly easy to understand an organization like General Motors. The Big "C" or paying Customer to them is the actual consumer who buys the automobile or truck.

The second type of customer is the little "c" customer. These are people who are indirect users of the service. They may be either internal or external to the organization. In General Motors for example, the little "c" customer might be the dealership who does not directly purchase the automobile or truck but General Motors must "please" them to continue doing business with them. Another example, using the automobile, might be the service technician. The service technician who repairs the automobile is a small "c" customer with General Motors. The reason for this is if the automobile is difficult to repair the service technician will not be able to repair it. Therefore, the Big "C" Customer who purchases the automobile will stop purchasing that particular model of car. So it is very important that General Motors not only please the Big "C" Customer, the consumer, but also the little "c" customer such as the service repairman and dealerships, to continue doing business with them.

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The little "c" customer can be people within the same organization. A school is probably one of the better examples. The little "c" customer could be the ones using the output of an Algebra I teacher. The Algebra II or Geometry teacher(s) could be considered Big "C" Customers for the students of the Algebra I teacher.

The most important thing to remember about the concept of Customer Satisfaction is that everyone has customers and each customer is important. Many times an organization will have multiple customers, as in the General Motors example, where the customers were those who buy the cars and also the dealerships and repair technicians.

Customers expect that their Expectations be met completely and consistently, every time. They also expect to receive value. Value can be defined as anything that is faster, better and cheaper than may be available in other places. There are three areas of Customer Expectations.

1. The first area is Base Expectations. Base Expectations are the goods or services a customer would expect to be available when they buy the product or service. One example is the automobile industry, where the customer would expect the automobile to have tires, a motor, seats, safety belts, doors that work, a warranty of three years, etc., when they buy their car.
2. The second area is known as Options. These Options would be those goods or services, that are optional to the customer (i.e., could be selected by the customer at additional cost) such as in the example of the automobile: sunroof, antilock braking systems, dual passenger side/driver side air-bags. Many expectations that once were options can now be put in the category of Base Expectations. An example of this would be that about twenty years ago air conditioning on a car in Texas would have been considered an option. Whereas today air conditioning in a car is a Base Expectation for someone living in Texas. Another example would be an AM/FM stereo/radio with cassette player. At one time, this was an option. Today it has become standard in nearly all cars. Options in today's cars could be a compact disc player or perhaps telephone equipment.
3. The third area or the highest level of customer expectations is the area known as "Delight". These are things the customer did not even expect to receive in the product or service. For example, in the car, this could be a device to automatically dim the headlights or turn the lights off after the occupant(s) leave the car. Another of these "Delight Expectations", at much lower cost, would be a place to store cups while driving the car.

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Of the three levels of customer expectation the lowest level is Base Expectations. This is the minimum performance the customer will always assume to be present. The customer would also like to have options that they can select and pay for such as dual-side air-bags in the prior example (i.e, Optional Expectations). Going to the third and highest level, "Customer Delight", we include features that are not expected to be paid for but are a "delight" to have. The very nature of the changing of expectation levels can be seen in many items that were one-time "Delights" but have worked their way into Options and in many cases Base Expectations. It must be remembered when dealing with Customer Satisfaction that customer's needs and desires continue to change. We must continually strive to understand what the customer's wants and needs are in order to be able to please and satisfy those wants and needs.

It is important to understand what the Customer may want and need. In the case of education, we should be very careful in using the word "want" because the customers (i.e., "students") would probably say they don't "want" anything. They don't "want" to come to class and they don't "want" to take a test. So in the case of the student it is probably more important to understand what the student needs versus wants. Be careful with this so that you don't start determining what the student needs yourself. While the student must have what he/she needs, he/she should also be able to determine what they want as well as the teacher.

When understanding what the customer needs it is important to understand what performance level it would take to satisfy the customer's needs. One of the best ways to find this out is by asking your customer about his/her particular needs as well as how satisfied he/she is with your particular performance of that characteristic.

There are several methods for understanding what the customer needs. One is by actually talking with the customer or groups of customers. Another one is to benchmark competitors or other people in similar fields and see what they provide customers that seems to meet their needs. The third way is the use of what I call a structured "Customer Survey" where you have an opportunity to ask customers or potential customers about their needs. The survey also allows the ability to prioritize customer needs and measure their satisfaction. In the Module on page 29 as an example, is a survey entitled TQM/Teacher Workshop Customer Survey. Looking at this form, there are several characteristics that I use in performing surveys. The first one is to find out how important a particular subject or service is to the customer and secondly to understand the customer's satisfaction with the way that product or service was delivered. After those two, the third item is find out what the customer likes about the product or service and the fourth is to understand what the customer's suggestions would be to improve this service. In the example of the Workshop Survey the attendee of the workshop can put down how important a particular presentation

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is to them and also they can determine their satisfaction with this presentation. The real heart of being able to use continuous improvement, which is the second concept of Total Quality Management, is for the customer to provide suggestions for areas that can be improved. This gives the person using the survey an opportunity to improve and better satisfy the customer.

The concept of the Customer Window, as presented by Total Quality Management, has proven to be a good learning tool. It has been used in the presentation of many of the Teacher Workshops in Total Quality Management. Looking at the Customer Window on page 28 the "X" axis is CUSTOMER SATISFACTION while the "Y" axis is IMPORTANCE. When the importance to the customer is high and their Satisfaction is also high, a situation exists which would be labeled "BRAVO" on the Customer Window.

- o The upper left quadrant, labeled "Attention" should be the first priority when working with a customer and is the first thing that should be analyzed. This situation is when the importance is high to a customer but their satisfaction is relatively low.
- o The "Second Priority" is when the customer satisfaction is not very high but the item is not as important.
- o The area that's labelled "Publicized" is where the customer is satisfied but the item is not as important to them. The word "publicized" is used so that whoever is providing this service can perhaps convince the customer that it truly is more important to them than perceived. Perhaps it can become publicized to the point that the customer perception can be increased so the item would be in the "Bravo" category.
- o Again, the "Bravo" category contains those items that are very important to the customer and with which the customer is really satisfied. It would be the goal to continue doing these items in the same manner.

How the Customer Window can be used is illustrated in the Teacher Workshop Survey example on page 30 where several presentations have been marked for importance and for customer satisfaction. In the example, TQM of Overview has an importance rating of 3" and a satisfaction rating of "7". On page 31 you will notice that the importance rating "3" keeps it below the mid-line since the customer window example is a scale of 1-10 but is to the right of the mid-point because it has a rating of "7" on Satisfaction. That will put the TQM Overview in the quadrant to Publicize. In the same way the Presentation on Customer Satisfaction, which was the third item on the Customer Survey, has an importance

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rating of "8" and a satisfaction rating of "4". By looking at the Customer Window, it can be seen that this has a very high importance but a relatively low satisfaction rating causing it to fall into the category requiring Attention. Therefore looking at the example, the priorities that would be given to working to improve the overall customer satisfaction with the workshop would be to start with the presentation on Customer Satisfaction and "We Care/Day Care".

The presentation on Empowerment and Leadership would be second priorities. The TQM Overview and the Teamwork Exercise would require publicity in order to improve the customer's perception of importance. The presentations on Problem Solving and Teamwork rate very high in this example and would not require additional efforts at this time.

In practical applications, it is always important, when giving surveys, that items be put in all four categories (i.e., x's in all four boxes across the form), when possible. Let me explain this a little further. If you were to have a survey similar to the one done on page 31 and if all the ratings were above "5", using a scale of 1 - 10, it would not be very practical on the Customer Window because all items, if they had ratings over "5" in satisfaction and importance, would fall in the upper right-hand quadrant and therefore you would not make improvements. In many cases, it would be appropriate to actually have a different scale. For instance, the scale could be 5 - 10. The key is to have items to work on. Also, in practical application you might determine that your "X" and "Y" scales are not always the same. I have had an example where the importance ratings varied by two or three numbers so in that case I used a 6 - 10 scale on Importance. In this same case the customer satisfaction rating varied less than 1 point so I had to use a 7 to an 8 on the scale for Customer Satisfaction. Again, the key to using the Customer Survey form and the Customer Window is to grade the customer's perception of importance and the level of satisfaction to know which items require improvement. Finally, I have found the Customer Window to be a very useful tool, especially when using surveys to get many types of feedback.

In looking at the educational process there are many places where there are customers and suppliers. It is sometimes difficult for educators to consider a student as a customer, yet the student is the primary customer of the school system. Even though he/she might not be considered a Big "C" Customer (paying customer) he/she is clearly a key customer. Whereas parents, employers and the general public are secondary customers. The chart on page 36 shows many customer/supplier relationships. In fact, the teacher tends to be a customer to the student where the student is expected to provide respect, to learn and to put forth best efforts. Administration is also a supplier to the teacher. Teachers are suppliers to other teachers. So it can be seen there are many customer/supplier relationships in education.

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In summary, the concept of "Customer" and the "commitment to Customer Satisfaction" is very key. It is important to understand there are many different kinds of customers and you need to understand what the customer's needs are and have satisfied the customer's need for service. In order to truly "please" the customer you must go beyond the basic expectation of the customer and look at what it takes to "delight" the customer. It must be kept in mind that the expectations of the customers will continue to increase. As you are able to provide a better quality service the customer's expectations will grow along with the quality of service provided. Therefore, you want to continually monitor the satisfaction of the customer. Taking a one-time survey does not meet this need. Follow-up surveys and the practice of continually surveying is important. If you treat your students as your customers and you survey their attitudes it would be better to make periodic surveys. I would recommend taking a survey somewhere in the neighborhood of once every one to two weeks.

The other concept of customer satisfaction I find to be very useful is the use of customer interviews. This is a simple yet analytical way of determining which items the customer perceives to be important and also those that do not satisfy them. This allows prioritization to be done in order to work on those items that are most important to the customer. It is also useful to use all interviews or surveys to determine if, by changing the particular product or service, you are able to improve customer satisfaction. It is also important, in keeping with the concept of continuous improvement, to continue working with those items that were the most important but yet the least fulfilling to the customer.

I've also found it to be helpful, once the views of the customer are determined and the items that have the greatest priority for improvement are identified, to actually work with the customer using some Problem Solving tools to understand what it would take to improve quality. Not only does it give you better ideas of what to do to improve the quality of service but also supplies a good opportunity to get the customer involved, thereby they become part of the solution.

The concept of Quality Functional Deployment (QFD) is normally associated with the introduction of a new product or service. The QFD process first became popular with the Japanese auto makers as they became more involved with determining their customer's wants and needs when they were developing new cars.

QFD is a structured approach to determining the customer's desires and measuring the relative importance of those desires. This information can be treated analytically in order to develop priorities and cost analyses for implementation.

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From a practical approach, the Customer Window is a simplified version of QFD. The Customer Window can be used to determine the customer's desires and the relative importance of those desires. The Customer Window does not have the sophisticated tools that can be found in QFD which allow the use of cost tradeoffs in setting priorities.

To summarize the concept of customer satisfaction, it is important to look back on the fact that the customer's satisfaction should be your number one priority just as the commitment to Customer Satisfaction is the number one priority of Total Quality Management. It is important that as we talk to our customers we remember that all customers are important.

We should understand ways of determining customer expectations, needs and also customer satisfaction. Being able to understand and use the Customer Window is a valuable tool in taking customer information and turning it into action.

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# " CUSTOMER SATISFACTION "

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HAVING IDENTIFIED THE CUSTOMERS'  
REQUIREMENTS, MEETING THOSE REQUIREMENTS  
EVERY TIME ---- 100 PERCENT  
OF THE TIME ---- IS THE ESSENCE OF  
ACHIEVING QUALITY. "

-- Arthur Tenner and Irving DeToro, Total Quality Management

## IDENTIFYING THE CUSTOMER

**The key to gaining a long-term competitive advantage is to continually meet customers' expectations in ways that they recognize as adding value. To achieve this advantage, it is necessary to know who your customers are, what they expect and how well you (and your competitors) are performing from your customers' point of view.**

# THE GOAL OF TQM

We must accept the concept that quality is defined by the customer and meeting the customer's needs and expectations is the strategic goal of total quality management (TQM)

--Total Quality Management



# **CUSTOMER SATISFACTION**

## **WHO ARE YOUR CUSTOMERS?**

### **○ BIG "C" CUSTOMERS**

- The one who pays for the product or service.
- They are usually external to the organization.

### **○ LITTLE "c" CUSTOMERS**

- Indirect users of the good or service (example: service technicians for automobiles)
- Other people within the organization who are dependent on your output
- Can be either internal or external to the organization.

### **○ REMEMBER!!!:**

**-- EVERYONE HAS CUSTOMERS**

**-- EVERY CUSTOMER IS IMPORTANT**

# CUSTOMER SATISFACTION

## WHAT DO CUSTOMERS EXPECT?

- They want their expectations to be met completely and consistently
- They expect to receive value in the products and services they purchase or use.

-- Arthur Tenner and Irving DeToro, Total Quality Management

# CUSTOMER SATISFACTION

## WHAT IS VALUE?

IT IS GETTING THINGS:

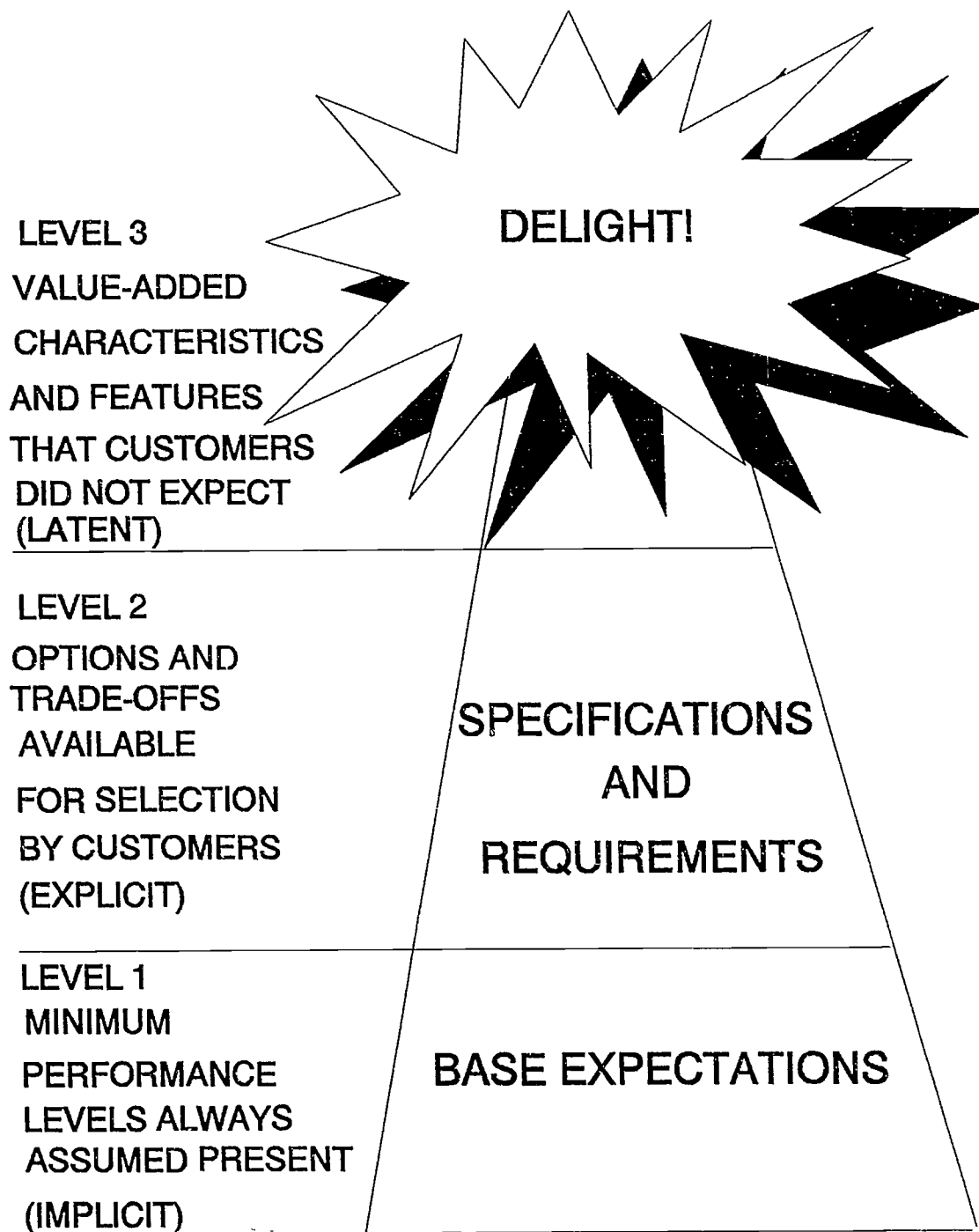
- FASTER
- BETTER
- CHEAPER

THAN AVAILABLE ELSEWHERE.

-- Arthur Tenner and Irving DeToro, Total Quality Management

" OUR GENERAL SYSTEMS SURVEY OF BUYER PREFERENCES  
IN BOTH CONSUMER AND IN INDUSTRIAL MARKETS  
(IN THE UNITES STATES) AT THE END OF 1988 SHOWED THAT  
EIGHT OUT OF TEN BUYERS PUT QUALITY AHEAD OF PRICE  
OR EQUAL TO PRICE IN THEIR BUY PREFERENCE. IN 1979,  
IT WAS THREE OUT OF TEN. "

--- Armand Feigenbaum, "America on the Threshold of Quality,"  
Quality, January, 1990



level

Tenner, Arthur and Irving DeToro. "Total Quality Management"

# **CUSTOMER SATISFACTION**

## **LEVELS OF CUSTOMER EXPECTATIONS:**

### **LEVEL 1: BASE EXPECTATIONS**

(Implicit)

Minimum performance levels that are always assumed present.

### **LEVEL 2: SPECIFICATIONS AND REQUIREMENTS**

(Explicit)

Options and trade-offs available for selection by the customers.

### **LEVEL 3: DELIGHT**

(Latent)

Value-added characteristics and features that the customers did not expect.

-- Arthur Tenner and Irving DeToro, Total Quality Management

# CUSTOMER SATISFACTION

## LEVELS OF CUSTOMER EXPECTATIONS:

(Radial Tire Example)

### LEVEL 3: DELIGHT

In the late 1960's, U.S. foreign car buyers were **delighted** to find out how long these tires lasted in comparison to the biased-ply tires that they had always known.

### LEVEL 2: SPECIFICATIONS AND REQUIREMENTS

By the 1970's, radial tires had become a desirable option on U.S. cars.

### LEVEL 1: BASE EXPECTATIONS

By the 1980's, the radial tire had become become embedded into customers' base expectations.

-- Arthur Tenner and Irving DeToro, Total Quality Management

# CUSTOMER SATISFACTION

## EIGHT DIMENSIONS OF PRODUCT QUALITY:

1. Performance
2. Features
3. Reliability
4. Conformance
5. Durability
6. Serviceability
7. Aesthetics
8. Perceived Quality (Reputation)

-- David Garvin, "Competing on the Eight Dimensions of Quality,"  
Harvard Business Review, Nov-Dec, 1987



# CUSTOMER SATISFACTION

## TEN DETERMINANTS OF SERVICE QUALITY:

1. Reliability
2. Responsiveness
3. Competence
4. Access
5. Courtesy
6. Communication
7. Credibility
8. Security
9. Understanding the Customer
10. Tangibles

-- Len Berry, Parsu Parasuraman, and Valerie Zeithaml, Delivering Quality Service: Balancing Customer Perceptions and Expectations

# CUSTOMER SATISFACTION

## FIVE "RATER" CRITERIA FOR SERVICE QUALITY:

1. Reliability: Ability to perform the promised service dependably and accurately.
2. Assurance: Knowledge and courtesy of employees and their ability to inspire trust and confidence.
3. Tangibles: Physical facilities, equipment, and appearance of personnel.
4. Empathy: Caring, individualized attention the organization provides its customers.
5. Responsiveness: Willingness to help customers and provide prompt service.

-- Len Berry, Parsu Parasuraman, and Valerie Zeithaml, Delivering Quality Service: Balancing Customer Perceptions and Expectations

# CUSTOMER SATISFACTION

## CUSTOMER EXPECTATIONS CAN BE DETERMINED BY ANSWERING FOUR KEY QUESTIONS:

1. What product/service characteristics do customers want?
2. What performance level is needed to satisfy their expectations?
3. What is the relative importance of each characteristic?
4. How satisfied are customers with performance at the current level?

-- Arthur Tenner and Irving DeToro, Total Quality Management

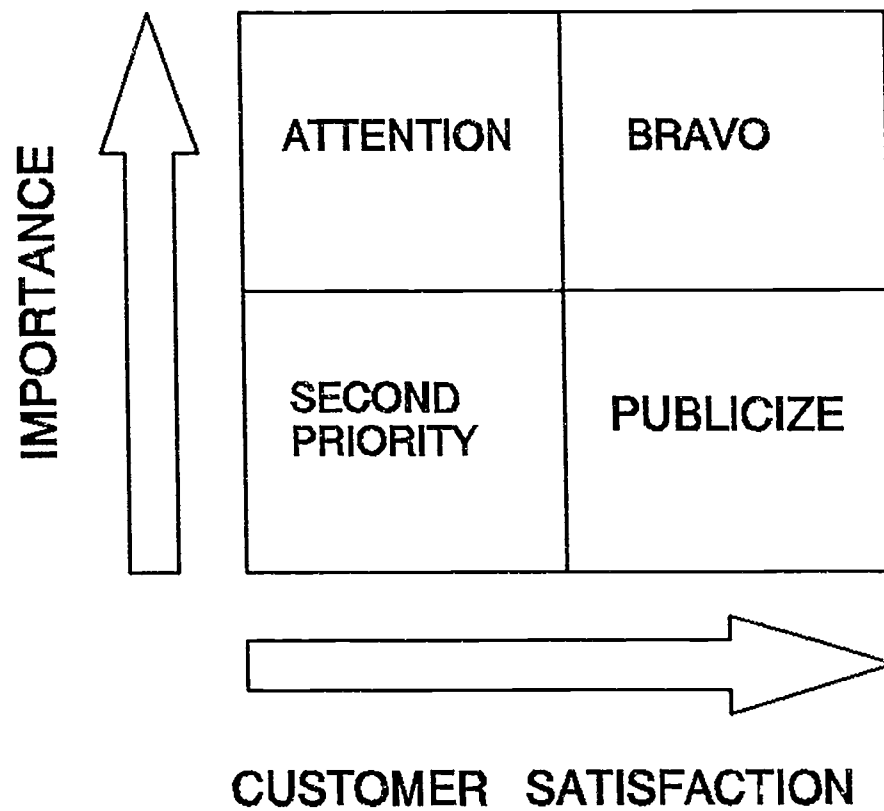
# CUSTOMER SATISFACTION

## METHODS TO UNDERSTAND CUSTOMER NEEDS:

- Personal Interviews of Customers
- Meet with Focus Groups of Customers
- Structured Customer Surveys
- Benchmarking

-- Arthur Tenner and Irving DeToro, Total Quality Management

# THE CUSTOMER WINDOW



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## TQM TEACHER WORKSHOP CUSTOMER SURVEY

Please signify the level of importance of the subject matter to you and your satisfaction with the presentation by circling the appropriate numbers below.

Presentation	Importance to You										Your Satisfaction									
	Not Very					Very					Not Very					Very				
1. TQM Overview	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
2. Teamwork Exercise	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
3. Customer Satisfaction	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
4. Problem Solving	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
5. "We Care" Day Care	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
6. Empowerment	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
7. Leadership	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
8. Teamwork	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10

What did you like most about this workshop? \_\_\_\_\_

What are your suggestions for improving this workshop? \_\_\_\_\_

Thank you for your time in answering this survey. It is my intent to use your comments to make continuous improvement.

David Leigh

"EXAMPLE"

# TQM TEACHER WORKSHOP CUSTOMER SURVEY

Please signify the level of importance of the subject matter to you and your satisfaction with the presentation by circling the appropriate numbers below.

PRESENTATION	IMPORTANCE TO YOU										YOUR SATISFACTION									
	NOT VERY					VERY					NOT VERY					VERY				
1. TQM OVERVIEW	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
2. TEAMWORK EXERCISE	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
3. CUSTOMER SATISFACTION	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
4. PROBLEM SOLVING	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
5. "WE CARE" DAY CARE	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
6. EMPOWERMENT	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
7. LEADERSHIP	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
8. TEAMWORK	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10

What did you like most about this workshop? \_\_\_\_\_

What are your suggestions for improving this workshop? \_\_\_\_\_

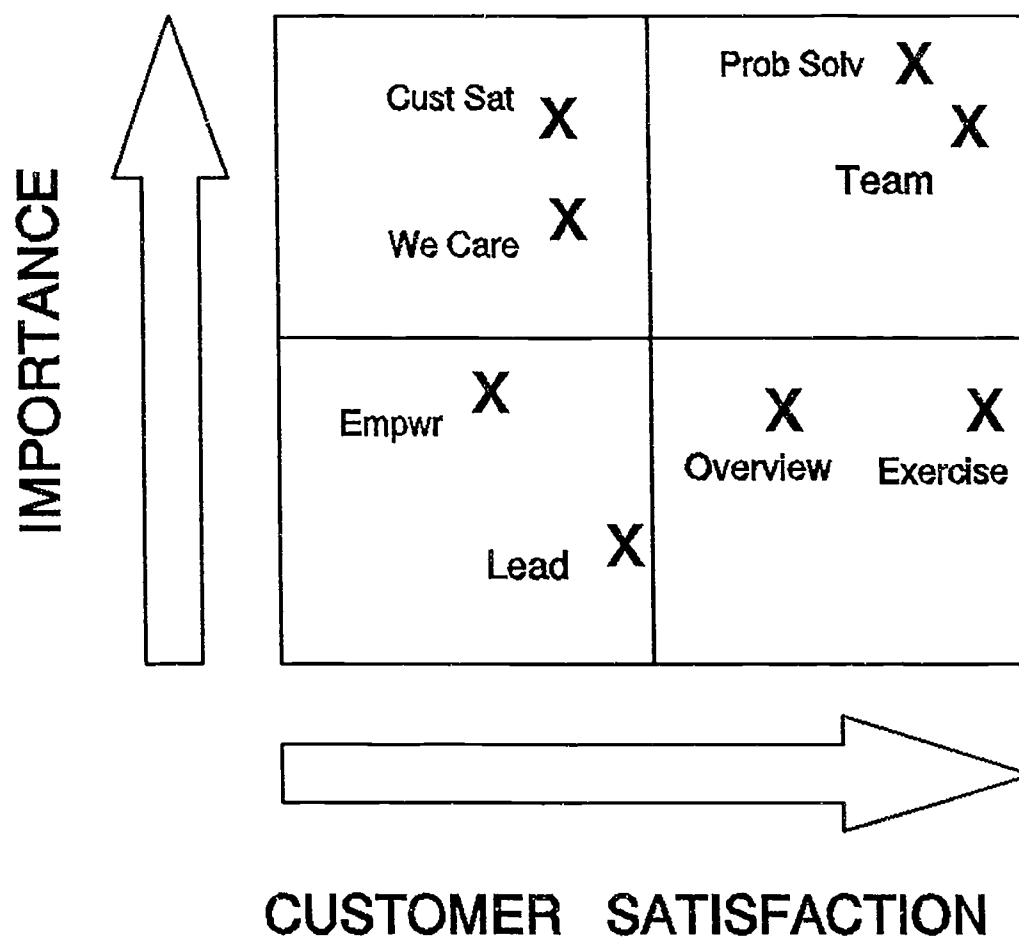
Thank you for your time in answering this survey. It is my intent to use your comments to make continuous improvement.

David Leigh

"EXAMPLE"

# THE CUSTOMER WINDOW

"Example"





# **CUSTOMER SATISFACTION**

## **"EXAMPLE"**

### **ACTION REQUIRED FROM SURVEY:**

1. **ATTENTION** (Immediate Action Required)

- Customer Satisfaction
- "WE CARE" Day Care

2. **SECOND PRIORITY**

- Empowerment
- Leadership

3. **PUBLICIZE**

- Overview
- Teamwork Exercise

4. **BRAVO** (Keep up the Good Work)

- Problem Solving
- Teamwork

# **WHY CUSTOMERS QUIT BUYING**

**68% Attitude of Indifference by  
Supplier's Employees**

**14% Product Dissatisfaction**

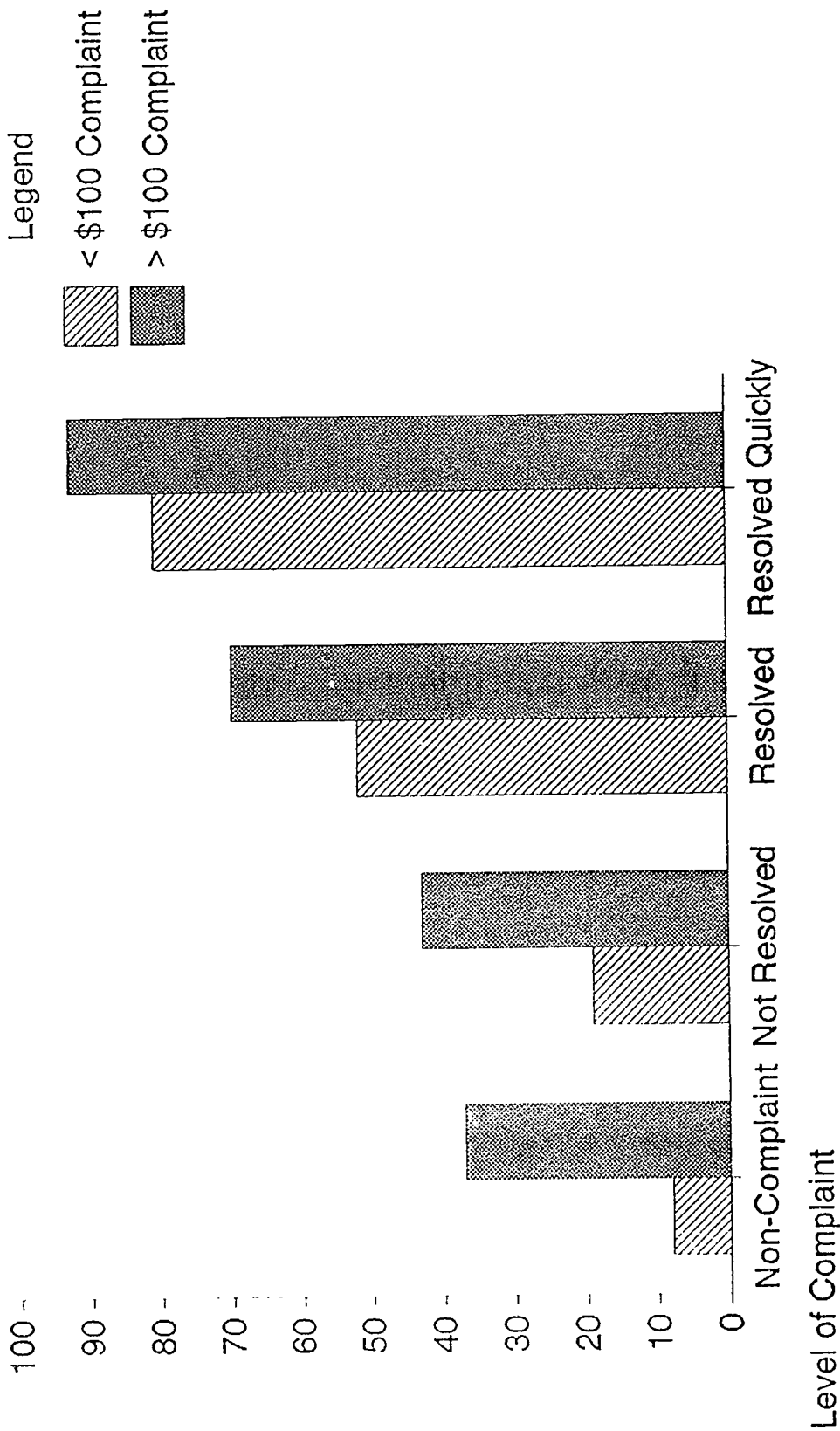
**9% Competitive Reasons**

**9% Miscellaneous**

# Handling Complaints

% Will Buy Again

(Converts Dissatisfied into Loyal Customers)



# MOVING QUALITY TO EDUCATION

- The school is not a factory.
- The student is not the product.
- Education is the product.
- The primary customer is the student.
- Parents are secondary customers.
- Employers are secondary customers.
- The general public are also secondary customers.

-- Dr. Myron Tribus, Governor's Conference on Quality in Education,  
November 10, 1992

## CUSTOMER/SUPPLIER RELATIONSHIPS IN SCHOOLS

<u>CUSTOMER</u>	<u>SUPPLIER</u>	<u>PRODUCT/SERVICE</u>
Students	Teachers	Instruction, coaching, respect
Students	School	Classrooms, supplies, food, transportation, teachers, curriculum
Parents	School	Graduates ready to be good citizens and adequately prepared with the necessary skills to pursue a career
Community	School	Graduates ready to be good citizens and workers, value in education
Community	Board of Education	Accountability
Teachers	Students	Respect, willingness to learn, best efforts
Teachers	Administration	Support, learning opportunities, teaching aids, discipline support
Teachers	Teachers	Knowledge of requirements at the next level, students prepared to work on grade level
Administration	Teachers	Support, knowledge of needs
Administration	Community	Information about community needs, opinions, personnel policies, "how are we doing"
Board of Education	Administration	Information about administration of policy, programs, students, achievements, accountability
School	Parents	Students who are ready to learn, support
School	Community	Financial support, volunteers, involvement of business

# " CUSTOMER SURVEYS "

Prepared by

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June 1, 1993

# TQM TEACHER WORKSHOP CUSTOMER SURVEY

Please signify the level of importance of the subject matter to you and your satisfaction with the presentation by circling the appropriate numbers below.

Presentation	Importance to You										Your Satisfaction									
	Not Very					Very					Not Very					Very				
1. TQM Overview	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
2. Teamwork Exercise	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
3. Customer Satisfaction	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
4. Problem Solving	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
5. "We Care" Day Care	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
6. Empowerment	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
7. Leadership	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
8. Teamwork	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10

What did you like most about this workshop? \_\_\_\_\_

What are your suggestions for improving this workshop? \_\_\_\_\_

Thank you for your time in answering this survey. It is my intent to use your comments to make continuous improvement.

David Leigh

# TQM TEACHER WORKSHOP CUSTOMER SURVEY

1. How effectively did this workshop meet your need for knowledge on the subject of TQM?

Not Very   1   2   3   4   5   6   7   8   9   10   Very

2. How effectively was the material presented?

Not Very   1   2   3   4   5   6   7   8   9   10   Very

How could the presenter have been more effective? \_\_\_\_\_

\_\_\_\_\_

3. How effective were the visual aids?

Not Very   1   2   3   4   5   6   7   8   9   10   Very

How could the visual aids be improved? \_\_\_\_\_

\_\_\_\_\_

4. How effective were the exercises and games?

Not Very   1   2   3   4   5   6   7   8   9   10   Very

How could these exercises be improved? \_\_\_\_\_

\_\_\_\_\_

Thank you for your time in answering this survey. It is my intent to use your comments to make continuous improvement.

David Leigh



# TQM/TECH PREP CURRICULUM DEVELOPMENT ADVISORY COMMITTEE SURVEY

## 1) Statewide Meeting in Temple

Please mark 1st, 2nd, 3rd, etc. preference

<u>DATE</u>		<u>TIME</u>	
March 2 (Tue)	_____	8-10 AM	_____
March 3 (Wed)	_____	10-12 AM	_____
March 4 (Thu)	_____	1-3 PM	_____
March 5 (Fri)	_____	3-5 PM	_____
March 8 (Mon)	_____	Other	_____
March 9 (Tue)	_____		
March 10 (Wed)	_____		
Other	_____		

Would you like to attend a two hour background session prior to the meeting? YES NO

## 2) Videoconference

Please mark 1st, 2nd, 3rd, etc. preference

<u>DATE</u>		<u>TIME</u>	
March 2 (Tue)	_____	8-10 AM	_____
March 3 (Wed)	_____	10-12 AM	_____
March 4 (Thu)	_____	1-3 PM	_____
March 5 (Fri)	_____	3-5 PM	_____
March 8 (Mon)	_____	Other	_____
March 9 (Tue)	_____		
March 10 (Wed)	_____		
Other	_____		

Name \_\_\_\_\_

Address \_\_\_\_\_

Phone \_\_\_\_\_

## STATEWIDE TQM ADVISORY COMMITTEE SURVEY

1. I will be willing to serve on this advisory committee. YES NO

\*2. The most effective means of communication for me would be:

- A) A statewide meeting \_\_\_\_\_
- B) A statewide video conference where I would attend at a regional center \_\_\_\_\_
- C) Mail \_\_\_\_\_
- D) Other \_\_\_\_\_  
\_\_\_\_\_

\*3. I would be able to attend a statewide meeting in:

Dallas \_\_\_\_\_  
 Austin \_\_\_\_\_  
 Temple \_\_\_\_\_  
 San Antonio \_\_\_\_\_  
 Houston \_\_\_\_\_  
 Other \_\_\_\_\_

I would not be able to attend a statewide meeting \_\_\_\_\_

\*4. I would be able to attend a statewide videoconference in the following regional location:

Austin	_____	Canyon	_____
College Station	_____	Corpus Christi	_____
Dallas	_____	Galveston	_____
Houston	_____	Kingsville	_____
Laredo	_____	Prairie View	_____
San Antonio	_____	Stephenville	_____
Temple	_____		

I would not be able to attend a statewide videoconference \_\_\_\_\_

5. Other suggestions for communication within the committee:

---

---

6. Additional Comments \_\_\_\_\_

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---

\_\_\_\_\_  
Name

\*Note: The TQM grant will not be able to reimburse travel expenses.

# " QUALITY FUNCTION DEPLOYMENT " (QFD)

Prepared by

David Leigh

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June 1, 1993

# **QUALITY FUNCTION DEPLOYMENT**

## **AS APPLIED TO**

## **PRODUCT AND SERVICE DEVELOPMENT**

--Adapted from a report by Don Brown, IBM Corporation, and used with permission.

# QUALITY FUNCTION DEPLOYMENT

## OUTLINE

**1. What is the problem?**

**Not satisfying the wants and needs of our customers.**

**2. A method to address this need.**

**Quality Function Deployment (QFD)**

**3. The benefits of QFD.**

**4. How the QFD works.**

--Adapted from a report by Don Brown, IBM Corporation, used with permission.

## QUALITY FUNCTION DEPLOYMENT

Probably the most important management fundamental that is being ignored today is staying close to the customer to satisfy his needs and anticipate his wants. In too many companies, the customer has become a BLOODY NUISANCE WHOSE UNPREDICTABLE BEHAVIOR DAMAGES CAREFULLY MADE STRATEGIC PLANS, WHOSE ACTIVITIES MESS UP COMPUTER OPERATIONS, AND WHO STUBBORNLY INSISTS THAT PURCHASED PRODUCTS SHOULD WORK.

Lew Young  
Editor-in-Chief  
Business Week

--Adapted from a report by Don Brown, IBM Corporation, used with permission.

## QUALITY FUNCTION DEPLOYMENT

- HOW DO WE KEEP THE "VOICE OF THE CUSTOMER" IN THE BUSINESS PROCESS?
- HOW DO WE FOCUS ALL FUNCTIONS ON SOLVING THE CUSTOMER'S PROBLEM?

KEY:

### OPTIMIZE TOTAL SOLUTION

--Adapted from a report by Don Brown, IBM Corporation, used with permission.



# QUALITY FUNCTION DEPLOYMENT

QFD IS...

## A PHILOSOPHY...

SINCE EVERYONE IN A BUSINESS HAS SOME AFFECT ON ITS ABILITY TO MEET THE CUSTOMER'S REQUIREMENTS, THE "FUNCTION" OF "QUALITY" SHOULD BE "DEPLOYED" THROUGHOUT THE BUSINESS.

## A METHOD...

LISTENING TO THE CUSTOMER AND TRANSLATING THEIR WANTS AND NEEDS INTO PRODUCT AND SERVICE REQUIREMENTS THAT CAN BE DEPLOYED THROUGH PRODUCT PLANNING, ENGINEERING, MANUFACTURING, SERVICE, SALES...

--Adapted from a report by Don Brown, IBM Corporation, used with permission.

# QUALITY FUNCTION DEPLOYMENT

## QFD IS...

- FEWER PRODUCT AND SERVICE COMPLAINTS
- REDUCED START-UP COSTS
- FEWER CHANGES AFTER INITIAL IMPLEMENTATION
- REDUCED DEVELOPMENT TIME

--Adapted from a report by Don Brown, IBM Corporation, used with permission.

## QUALITY FUNCTION DEPLOYMENT

WHAT DOES THE CUSTOMER WANT AND NEED?

WHY?

"NEED TO GET INTO THE CUSTOMER'S HEAD"

--Adapted from a report by Don Brown, IBM Corporation, used with permission.

C:QFD.

53

52

# QUALITY FUNCTION DEPLOYMENT

## VOICE OF THE CUSTOMER-RECIPE (QUALITATIVE "WANTS AND NEEDS")

- CREATE QUESTIONNAIRE TO UNDERSTAND WANTS/NEEDS AND WHY
- SET UP INTERVIEWS
- TAPE RECORDS, TRANSCRIBE, ANALYZE-CREATE 3X5 CARDS FOR EACH REQUIREMENT
- ANALYZE DATA BY WANTS AND NEEDS

--Adapted from a report by Don Brown, IBM Corporation, used with permission.

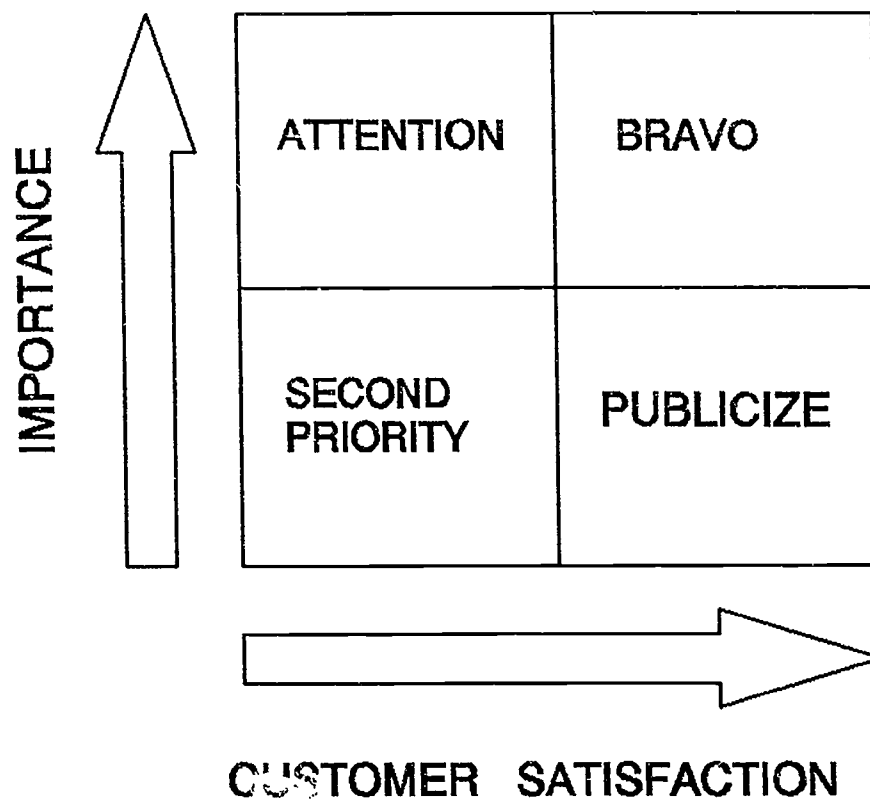
# QUALITY FUNCTION DEPLOYMENT

## VOICE OF THE CUSTOMER - RECIPE (QUANTITATIVE "IMPORTANCE AND SATISFACTION")

- CREATE SURVEY FROM CUSTOMER WANTS AND NEEDS
- RATE IMPORTANCE AND SATISFACTION OF CURRENT PRODUCT OR SERVICE (WHAT ARE THEY USING)
- MINIMUM ACCEPTABLE PRODUCT OR SERVICE DESCRIPTION
- GIVE SURVEY TO SAME CUSTOMER PLUS SUBSTANTIATE WITH SURVEY OF LARGER GROUP IF POSSIBLE
- ANALYZE DATA BY INDUSTRY, APPLICATION, WANT/NEED

--Adapted from a report by Don Brown, IBM Corporation, used with permission.

# THE CUSTOMER WINDOW



C:\DR11\FIGURES\CWINDOW2

# FOCUS ON THE CUSTOMER

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